

Canadian Survey August 2008



Photographs courtesy of Dave Reddin, DFO, Canada



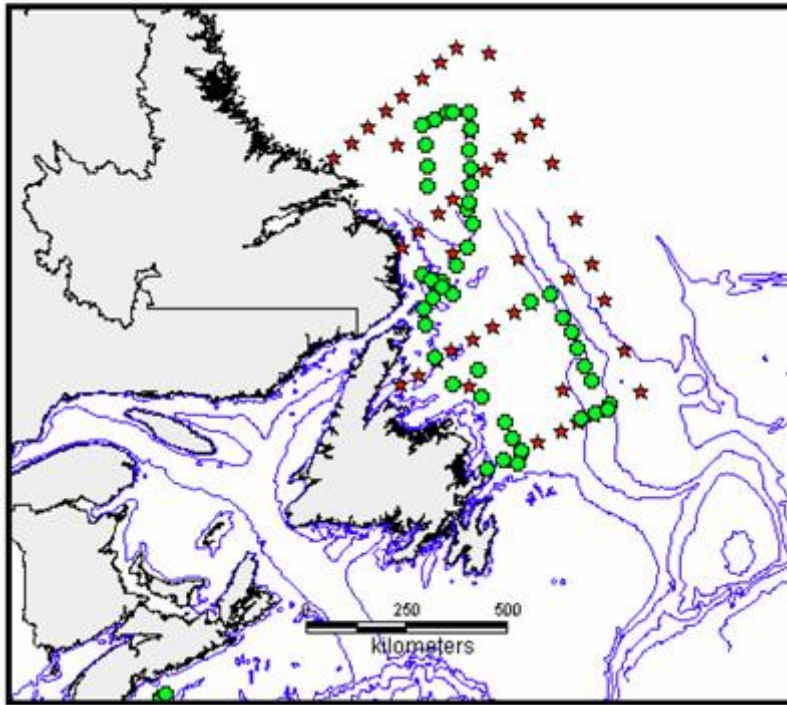
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A pelagic ecosystem survey of the northwest Atlantic was conducted in August 2008 using the CCGS Wilfred Templeman. During 8 - 21 August, a total of 46 stations were sampled with the pelagic surface trawl. The survey covered an area extending from just south of 49°N to 56°N, 49°W to 55°W. Oceanographic data were collected at 16 stations and plankton samples were collected at 12 stations. Stations sampled were characterized by depths from 100m to over 3,000m, and water temperatures (at about 10m depth) ranging from 7.7° to 14.4°C.

Very few (N=15) of the targeted species, Atlantic salmon, were captured during the survey. Atlantic salmon were captured at 8 of the 46 stations (17%) and the majority (14 of 15 fish) was captured at stations north of 52° latitude. The highest individual trawl catch of salmon was three fish observed at two stations. The stations with salmon catches were characterized by a wide range of water depths (about 250 m to >3,000m depth) and temperatures (less than 10°C to over 13°C). Salmon were only captured during the daytime. The salmon ranged in size from 23 to 31 cm fork length, and whole weights of 0.14 to 0.34 kg.

Although very few Atlantic salmon post-smolts were captured in this first survey in August 2008, the majority of the fish captured were at stations north of 52° latitude. Sea surface temperatures were warm in 2008 relative to previous years and the catches of post-smolts from 2008 occurred in the areas with cooler water temperatures (at or less than 12°C). In subsequent surveys in the same season, the sampling effort should be focused on exploring the northern (north of 52°C) and cooler areas of the northwest Atlantic.

Deployment of the trawl, sampling for one hour and retrieval of the trawl were completed in under two hours per station. Fishing of the pelagic trawl was quickly mastered by the fishing crews and the gear captured a surprising diversity of small-bodied aquatic organisms which occupied the upper 10m of the water column. In subsequent discussions, it was suggested that trawls of longer duration should be considered in order to increase the catch of salmon. The trade-off then is longer sampling intervals at each station but fewer stations sampled.



Pelagic ecosystem survey – proposed stations (stars), sampled stations (circles) in August 2008.



The science crew on the 2008 SALSEA - North America pelagic survey